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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/938,448 | 08/24/2001 | Michel Deeba | 4616 | 2234 |

7590 01/30/2004
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EXAMINER:

TRAN, HIEN THI

| ART UNIT | PAPER NUMBER |
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1764

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,448

Applicant(s)

DEEBA ET AL.

Examiner

Hien Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 19-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-40 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of groups I and III in Paper filed 11/06/03 is acknowledged. The traversal is on the ground(s) that the examiner provides no support for the finding that the product of Group I is not allowable. This is not found persuasive because the finding that the product of group I is not allowable is supported via the rejections set forth below as well as in the previous office action. Note that since the claims are directed to three inventions: the product (group I), the process (group II) of using the product and the process (group III) of making the product and since the product of Group I is not allowable as evidenced by the rejections set forth below as well as in the previous office action, restriction is proper between said method of making the product and method of using the product. The product claims in Group I will be examined along with the elected invention of group III (see MPEP § 806.05(i)).

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 19-39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper filed 11/06/03.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-18, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Strehlau et al (CA 2,267,010).

With respect to claims 1-3, 8-16, 18 and 40, Strehlau et al discloses an apparatus and a method of making the apparatus, comprising:

a lean burn engine 2 having an exhaust outlet;

an upstream section 5 having a close coupled catalyst composite in communication with the exhaust outlet, the upstream close coupled catalyst composite comprising: a first support; a first platinum group component; and a SO_x sorbent component selected from the group consisting of oxides and mixed oxides of barium, lanthanum, magnesium, strontium, etc. (page 11, line 33 to page 12, line 5; page 21, lines 1-32; page 22, line 16-34; page 23, line 9 to page 24, line 5); and

a downstream section 6 comprising: a second support; a second platinum group component; and a NO_x sorbent component selected from the group consisting of compounds of lithium, sodium, potassium, cesium, calcium, strontium, barium, lanthanum, etc. (page 20, lines 9-15; page 23, lines 9-32);

wherein the upstream section has substantially no components adversely affecting three-way conversion under operating conditions; the first and second supports may be ceramic (cordierite) or metal honeycomb substrates (page 1; page 11, line 33 to page 12, line 11; page 20, line 9 to page 21, line 32; page 22, line 16-34; page 23, line 9 to page 24, line 5; page 24, lines 13-16; page 25, lines 18-20).

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With respect to claims 4-7, Strehlau et al discloses that the first and second platinum group metal components are platinum, palladium, rhodium, ruthenium, iridium, osmium (page 20, lines 12-15; page 22, lines 18-21; page 23, lines 25-26).

With respect to claims 17, Strehlau et al discloses that the upstream and/or downstream section further comprises a zirconium component (page 23, lines 10-18).

Instant claims 1-18 and 40 structurally read on the apparatus of Strehlau et al.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. The art area applicable to the instant invention is that of catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by

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applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

8. Claims 1-18 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strehlau et al (CA 2,267,010) in view of EP 625,633.

The same comments with respect to Strehlau et al apply.

Strehlau et al is silent as to the specific support for the storage catalyst 6.

However, Strehlau et al further discloses the conventionality of providing a specific support of catalyst and SOx sorbent (page 23, lines 9-18).

Furthermore, EP 625,633 discloses the conventionality of providing a NOx sorbent with the specific support as claimed.

It would have been obvious to one having ordinary skill in the art to use the conventional support as disclosed in Strehlau et al or EP 625,633 for supporting the NOx sorbent in the apparatus and method of Strehlau et al, if not inherent therein, on the basis of its suitability for the intended use as a matter of obvious design choice, as use of such is conventional in the art and no cause for patentability here as evidenced by Strehlau et al and EP 625,633.

Response to Arguments

9. Applicant's arguments filed 11/06/03 have been fully considered but they are not persuasive.

Applicants argue that Strehlau et al does not teach a catalyst composite with a closed coupled upstream section and a downstream section wherein the close-coupled catalyst is placed close to an engine to enable it to reach reaction temperatures as soon as possible. Such contention is not persuasive as Strehlau et al does teach a catalyst an upstream section 5 having a close coupled catalyst composite in communication with the exhaust outlet, the upstream close coupled catalyst composite comprising: a first support; a first platinum group component; and a SOx sorbent component selected from the group consisting of oxides and mixed oxides of barium, lanthanum, magnesium, strontium, etc. (page 11, line 33 to page 12, line 5; page 21, lines 1-32; page 22, line 16-34; page 23, line 9 to page 24, line 5); and

a downstream section 6 comprising: a second support; a second platinum group component; and a NOx sorbent component selected from the group consisting of compounds of lithium, sodium, potassium, cesium, calcium, strontium, barium, lanthanum, etc. (page 20, lines 9-15; page 23, lines 9-32).

The upstream section 5 is located near the engine 2 (Fig. 1, page 11, line 33 to page 12, line 5).

Applicants argue that the examiner is using "obvious to try" rationale. Such contention is not persuasive as the examiner is not contending it would be obvious to try the proposed modification. The examiner's position is rather that Strehlau et al discloses all of the structural limitation of the instant claims except the specific support for the storage catalyst 6. However, Strehlau et al further discloses the conventionality of providing a specific support of catalyst and SOx sorbent (page 23, lines 9-18).

Furthermore, EP 625,633 discloses the conventionality of providing a NOx sorbent with the specific support as claimed.

Accordingly, it would have been obvious to one having ordinary skill in the art to use the conventional support as disclosed in Strehlau et al or EP 625,633 for supporting the NOx sorbent in the apparatus and method of Strehlau et al, if not inherent therein, on the basis of its suitability for the intended use as a matter of obvious design choice, as the use of such support is conventional in the art and no cause for patentability here as evidenced by Strehlau et al and EP 625,633.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HT
January 26, 2004


Hien Tran
Primary Examiner
Art Unit 1764